InCommon®

Powered by INTERNET2

Forward Together

2025 Year in Review

Connection.
Confidence.
Progress.

Connection begins with trust.

1K+ MEMBER ORGANIZATIONS

44K EDUROAM HOTSPOTS

6K+ SERVICES THROUGH INCOMMON FEDERATION

Executive Summary

2025 was a year of motion for InCommon. Following the Futures2 planning process in 2024, the community moved decisively from strategy to execution. Ideas that had been under discussion began to take visible form across services, infrastructure, and the ways the work is organized and sustained.

InCommon has long advanced through shared effort and trust. As identity and access work expands across institutions and borders, the connections between people and organizations continue to shape how InCommon evolves and delivers value.

What follows traces how that momentum took shape across InCommon's services and community throughout 2025.

InCommon creates secure, connected spaces where innovation thrives beyond borders. Together, we unlock the full potential of cross-institutional collaboration and drive progress that shapes our collective future.

Futures2 and the Community Voice

In 2025, InCommon and the community made significant progress on the goals set forth in the Futures2 strategy. Developed in 2024 through extensive community input, Futures2 is InCommon's shared strategy for strengthening trust, improving usability, and ensuring services continue to meet the evolving needs of research and education.

Progress across InCommon's services, supporting structures, and community engagement includes:

- **New, community-vetted descriptive artifacts** to better communicate InCommon's role and value across research and education.
- **A redesigned website** with an improved Community Organizations Directory, scheduled to launch in early 2026.
- **A new Security-Focused Innovation Group** established to create space for sustained attention on emerging security challenges and shared solutions.

Other Futures2 priorities informed changes participants encountered directly, such as:

- Partnerships, including work with NIH through InCommon and NET+, which supported secure and compliant access to more than 6,000 academic and research services through the Federation. Tools such as **Federation Checker, IAM Sketch, and enhancements to Federation Manager and eduroam** reporting improved visibility and day-to-day use.
- Training and engagement expansions through offerings like **Grouper on Demand, Identity Foundations, accelerator programs, and Thread Meet-ups,** which made it easier for institutions to adopt services and stay connected to one another.

Privacy, Trust, and Security for R&E

Privacy, trust, and security define how research and education institutions participate in shared identity environments at scale. InCommon supports this work by establishing clear expectations for how identity data is handled, how participants operate within the network, and how access is protected over time.

Privacy	Trust	Security
Control over personal data The Trusted Access Platform (TAP) controls the release of personal data to service providers.	**Confidence in the federation** A centralized framework ensures participants abide by the same rigorous rules.	**Protection of sensitive information** InCommon's services are secure by design and hardened over the last 20 years.

2025 IN ACTION

InCommon Hosted Fourth Annual Cybersecurity Cooperation Exercise in the Fall

InCommon's fourth annual Sirtfi cybersecurity exercise brought teams together to practice cross-campus incident response—before a real breach demanded it.

Making Federation Work for Libraries: Four Experts on Privacy, Trust, and Quick Wins

Library, vendor, and federation leaders examined why IP authentication persists in academic libraries, and how privacy-preserving federation can bridge the trust gap.

IAM Foundations: Career Insights from UT Austin's Marta Lang

The field of IAM demands both technical skill and collaboration—two themes explored in this reflection on career growth in higher ed.

A Global Trust Fabric

Secure and seamless access to global resources is a priority shared across the research and education community. The InCommon Federation contributes to a worldwide trust fabric that allows researchers to collaborate across borders with confidence.

2025 IN ACTION

This work includes participation in international governance and standards bodies, including:

GÉANT TNC Programme Committee: informing the agenda for Europe's premier research and education networking conference

REFEDS Steering Committee: supporting federation standards that enable scholars to use home institution credentials for international projects

REFEDS MFA Profile Working Group: advancing phishing-resistant standards to promote a more consistent and protected identity experience for researchers worldwide

Simplifying Global Collaboration

InCommon collaborates with peers and partners to support access across borders, including:

- **Shibboleth Consortium** — working with colleagues in 19 countries to guide the evolution of this widely adopted single sign-on solution
- **OpenID Foundation and European developers** — contributing to next-generation identity protocols that reflect the unique needs of higher education
- **SeamlessAccess coalition** — collaborating globally to improve the user login experience

At its heart, our work is about people. We want to ensure that students and researchers can focus on their work rather than the complexities of technology.

Specialized Tools for Seamless Access

From campus Wi-Fi to international research data, InCommon connects people to what they need — securely, seamlessly, and at any scale.

EDUROAM

Global access to 44k+ hotspots for students, researchers, and staff as they roam

In 2025, eduroam expanded its footprint across the United States while strengthening the support structures that help institutions deploy and manage the service confidently. Missouri's MOREnet and Wisconsin's WiscNet joined the eduroam Support Organizations (eSO) Program, and new analytics features introduced daily data updates and interactive dashboards to help institutions understand usage and plan for growth.

EDUROAM BY THE NUMBERS

- **887 higher education and research deployments**
- **eduroam Support Organizations in 11 states supporting 528 K12 eduroam deployments**
- **4360 eduroam locations across the US including**
  - **1338 K12 schools**
  - **240 libraries**
  - **15 museums**

eduroam removes roadblocks to internet access. As its footprint grows, institutions can support mobility without reinventing solutions or compromising trust.

InCommon Federation

Secure access to 6,000+ academic and research services so institutions can collaborate confidently.

In 2025, the Federation continued to operate as both critical infrastructure and a community of practice. The Trust & Identity team, alongside Federation participants, focused on evolving the service to meet emerging needs — driving technical innovation, ongoing community engagement, and stronger interoperability, reliability, and trust across the ecosystem. **Read more: REFEDS Assurance Framework 2.0 Implementation Recommendations**

InCommon also expanded its focus on identity proofing and fraud protection, helping campuses integrate best practices into institutional requirements. This work continued through sessions at Technology Exchange 2025 and will carry into 2026, with particular attention to new guidance from the National Institutes of Health (NIH). Learn more at **InCommon Identity Proofing.**

Certificate Service

Unlimited server and public user certificates for one annual fee.

340K

CERTIFICATES ISSUED IN 2025

2025 brought industry changes to certificate management. **By 2029, TLS certificates will be limited to 47 days, with domain control revalidated every 10 days.** These updates strengthen security but require more frequent renewals and verification. Automation, including tools like ACME, will be essential to manage this at scale.

At the same time, growth in eduroam authentication using EAP-TLS (certificate-based authentication) increases the need to manage certificates on user-owned devices. Because campuses don't centrally manage student devices, they must offer clearer configuration guidance and simpler setup. This demand will grow in 2026 as K–12 adoption of eduroam expands and more device types connect to campus networks.

Shorter lifecycles make automation essential for secure access at scale.

IAM TOOLS & SOFTWARE

Strengthening identity infrastructure with the Trusted Access Platform.

The InCommon Trusted Access Platform (TAP) packages community-developed IAM software — Shibboleth, Grouper, midPoint, and COmanage — so institutions can strengthen identity infrastructure and integrate with existing systems more efficiently. In 2025, TAP efforts focused on improving adoption and day-to-day operations through clearer documentation, expanded learning options, and practical planning tools. Highlights included:

1. **Reorganizing Grouper documentation** to prioritize current, user-facing guidance and archive outdated materials.
2. **Launching on-demand Grouper training** with InCommon Academy to meet sustained community demand and support adoption.
3. **Introducing IAM Sketch**, a Futures2 deliverable that supports architecture planning and modernization discussions.

Read more:

- Beyond Authentication, When Secure Access Demands Identity Assurance
- Unlocking Seamless Learning: The Power of Federated Identity in Enhancing Student Experiences
- InCommon's IAM Sketch for Architecture Planning
- The "Intersection" of Grouper and AI
- Community Collaborates to Enhance Grouper Documentation
- Key Identity Trends in R&E: AI, Federation, and Trust Management
- Navigating Cloud Choices in Higher Ed IAM

TAP helps institutions move faster on IAM foundations by pairing widely used open-source tools with guidance and community practice.

Support and Guidance: The Human Side of IAM

Expert-led training built for research and education IT professionals to advance IAM excellence.

INCOMMON ACADEMY

Scalable learning options, community-powered cohorts, and specialized IAM training.

In 2025, the InCommon Academy delivered high-impact learning experiences aligned with community needs and InCommon services, engaging 1,756 IAM professionals while evolving its technical training model and strengthening its role as a community convener. The Academy expanded on-demand training offerings and introduced Thread Meet-ups and Community Bonfires to create more flexible and timely engagement opportunities.

2025 BY THE NUMBERS

1.7K+ COMMUNITY ENGAGEMENT ACROSS ALL ACADEMY PROGRAMS

160+ BASECAMP PARTICIPANTS FROM 66 ORGANIZATIONS

125+ PROFESSIONALS TRAINED ACROSS TAP COMPONENTS (SHIBBOLETH, GROUPER, MIDPOINT, COMANAGE)

- **97 professionals** trained on eduroam to support operational readiness for global wireless access
- **~98 average unique attendees** per ACAMP session engaged in collaborative problem solving
- **853 webinar participants** engaged in community-led insights and expertise (66% attendance rate)
- **14 blog posts** amplifying community expertise and program insights

Flagship Events for Community Learning

- BaseCAMP 2025 welcomed emerging IAM professionals with **29 sessions** led by **40 speakers** across **23 hours** of learning and networking.
- CAMP Week & ACAMP @ TechEX featured **27 curated sessions** followed by **40 peer-led ACAMP discussions** over 1.5 days, where practitioners tackled federation, identity lifecycle, security, cloud, and automation challenges.

Training Innovation for Community Needs

The Academy evolved its technical training portfolio to meet community demand while improving delivery efficiency, including:

- An advanced midPoint: Multi-Affiliation Management course addressing complex concurrent affiliation scenarios in higher education
- A community-activated COmanage model that organized interested participants into focused cohorts

Responsive Programming and Community Confidence

- Thread Meetups and Community Bonfires engaged **415 attendees** across **six timely sessions** advancing peer dialogue on modernization, hybrid architectures, and identity assurance.
- IAM Online webinar series elevated community-led insights across topics including identity trends, cloud shifts, architecture planning, and federation for academic libraries, achieving a strong **66%** attendance rate.

Read more: Speaker Spotlight – Introducing eduroam Baseline Expectations | IAM Modernization Is What You Make It: 6 Ways to Get Started

The Academy provides timely training, peer learning, and strategic guidance for IAM professionals. In 2026, it will continue adapting to meet emerging R&E challenges and support InCommon services.

Industry Connections

InCommon connects the R&E community with industry partners through a neutral, community-centered framework grounded in shared expectations. The program includes InCommon Catalysts – trusted IAM partners – and Sponsored Partners – commercial providers accessible through the Federation.

CATALYST PROGRAM

Vetted partners helping R&E institutions implement and scale IAM solutions.

The InCommon Catalyst Program supports institutions adopting and extending identity and access services within the Federation. With diverse technical, consulting, and strategic backgrounds, Catalysts share operational knowledge directly with the community. They also maintain a sponsorship presence at major Internet2 events, supporting event revenue and reinforcing their visible, approachable role through sessions, posters, and tutorials featuring collaborative work with member institutions.

In 2025, case studies highlighted work with CILogon and the Open Science Grid, along with Cirrus Identity's efforts to streamline researchers' access to shared resources — showing how Catalyst expertise translates into federated solutions at scale. The quarterly Catalyst to Catalyst newsletter column further shares Catalyst perspectives on IAM trends, solutions, and emerging challenges across R&E. This year's columns include:

Spring 2025: Ideas and Insights from InCommon Catalysts | Summer 2025: Ideas and Insights from InCommon Catalysts | Fall 2025: Ideas and Insights from InCommon Catalysts

SPONSORED PARTNERS

Commercial Service Providers participating in the InCommon Federation.

In 2025, InCommon's Sponsored Partners reflected the growing scale and complexity of the ecosystem, with 275 participating as trusted commercial service providers. Feedback from Sponsored Partners and other federated service providers highlighted ongoing challenges in integrating with the InCommon Federation.

Many cloud providers, in particular, operate identity architectures that do not naturally align with a multilateral federation model, and often rely on OpenID Connect (OIDC) rather than SAML. We also heard a need for greater visibility into federated services — without crossing into overt marketing. InCommon continues working with Sponsored Partners to streamline Federation participation and increase community awareness of available federated services.

INTEGRATED COMMUNITY AND INDUSTRY EFFORTS

Streamlining service provider onboarding—commercial or otherwise—emerged as a priority in 2025. Community input, Sponsored Partner engagement, and Catalyst expertise, informed the creation of TAC's Relying Party Discovery and Onboarding Working Group (RPDO-WG). Launching at Technology Exchange 2025 as part of the TAC 2026 workplan, the group focuses on improving how services integrate with the InCommon Federation, with areas of focus including:

- **Improving Identity Provider (IdP) discovery** to enhance user experience
- **Lowering barriers to onboarding** for commercial and non-commercial service providers
- **Expanding visibility of federated services** through clearer or more automated service discovery approaches

Community Leadership

INCOMMON STEERING COMMITTEE

The InCommon Steering Committee guides the community toward its mission of enabling trusted collaboration across research and education. Leaders from member institutions volunteer their time and expertise to shape policies, set priorities, and ensure InCommon remains responsive to evolving community needs.

Chair: Chris Misra, University of Massachusetts Amherst
Vice-Chair: Kim Milford, University of Illinois Urbana-Champaign
Secretary: Dave Robinson, Baylor School

Committee roster:

- Ashrab Ahmed, National Institutes of Health
- Rachana Ananthakrishanan, University of Chicago
- Brad Christ, University of Hawaii
- Bernie Gulachek, University of Minnesota
- Kristi Holmes, Northwestern University
- Dedra Chamberlin, Cirrus Identity
- Jim Stewart, UETN
- Marc Wallman, North Dakota State University
- Romy Bolton, Internet2
- David Bantz, University of Alaska – Liaison from CTAB
- Brett Bieber, University of Nebraska – Liaison from the eduroam Advisory Committee
- Margaret Cullen, Painless Security – Liaison from CACTI
- Keith Wessel, University of Illinois at Urbana-Champaign —Liaison from TAC
- Kevin Morooney, Internet2 – Advisor
- Steve Zoppi, Internet2 – Advisor
- Ann West, Internet2 – Advisor
- Klaas Wierenga, GÉANT – Advisor
- Carle Pfenning, Internet2 – Flywheel

Trust across the InCommon ecosystem grows when governance is shaped and stewarded by peers.

The Power of Working Together

Peer collaboration turning shared challenges into scalable solutions.

1 TRANSFORMING ACCESS CHAOS

How Three Universities Are Solving Authorization Complexities with Innovative IAM Approaches

Authorization—who can access what and why—remains a persistent IAM challenge. While authentication has centralized, authorization often stays fragmented across applications, creating operational burden and risk. In 2025, an IAM Online session convened peers from the University of Pennsylvania, Harvard University, and the University of Alaska to share "front-door authorization" approaches. Shifting access decisions to the point of entry reduced manual checks, strengthened compliance, and improved deprovisioning—replacing patchwork rules with coordinated infrastructure.

2 INAUGURAL FEDERATION DAY

Deepening Connections within our Global Community

In 2025, we hosted the inaugural Federation Day, convening international collaborators to "connect the dots" across the Federation. The event created space for focused dialogue on shared priorities, including phishing-resistant multi-factor authentication and the next phase of growth for R&E federations, keeping our collective work grounded in participant needs.

3 MISSOURI AND WISCONSIN JOIN EDUROAM

MOREnet and WiscNet Deliver Secure Wi-Fi to Schools and Community Spaces

The eduroam Support Organizations program continues expanding secure Wi-Fi access across K–12 by leveraging trusted state research and education networks. Now serving 11 states, the program extends reliable connectivity to schools and community spaces, so access follows the learner wherever they go. "The growth of the eduroam Support Organizations program is inspiring, watching people and organizations who urgently and passionately want to make where they live, better," said Kevin Morooney, vice president of Trust and Identity and NET+ at Internet2. "The program's momentum comes from the trusted peer community behind it, who learn from one another's experience and solve new challenges together."

Committees and Advisory Groups

InCommon brings together leaders and professionals from hundreds of universities and research organizations who volunteer their time and expertise to address shared IAM challenges. Their contributions ensure InCommon's infrastructure supports collaboration across institutional boundaries.

InCommon Community Trust and Assurance Board (CTAB)

Chair: David Bantz, University of Alaska
Vice-Chair: Jon Miner, University of Wisconsin-Madison

Committee roster:

- Warren Anderson, Laser Interferometer Gravitational-Wave Observatory
- Pål Axelsson, SUNET
- Matthew Eisenberg, National Institutes of Health
- Richard Frovarp, North Dakota State University
- Michael Grady, Unicon
- Scott Green, Eastern Washington University
- Christopher Keith, Brown University
- Kyle Lewis, Research Data and Communications Technologies
- Ryan McDaniel, University of Alaska Anchorage
- Rick Wagner, Argonne National Laboratory
- Kathy E. Wright, Clemson University – Liaison from TAC
- Gabor Eszes, University of Virginia – Liaison from CACTI
- Albert Wu, Internet2 – Flywheel
- Tom Barton, Internet2 – Ex-Officio

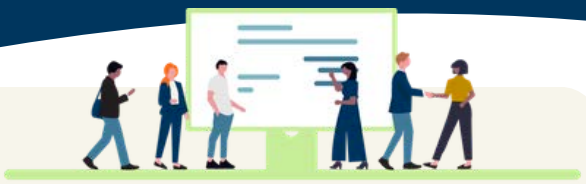
2025 CTAB Accomplishment Report

Community Architecture Committee for Trust and Identity (CACTI)

Chair: Margaret Cullen, Painless Security
Vice-Chair: Kevin Hickey, University of Detroit Mercy

Committee roster:

- John Bradley, Independent
- Judith Bush, OCLC
- Robert Carter, Duke University
- Gabor Eszes, University of Virginia
- Tom Jordan, University of Wisconsin – Madison
- Les LaCroix, Carleton College
- Kevin Mackie, Oregon Health & Science University
- Dmitri Zagidulin, MIT
- Derek Owens, University of Notre Dame
- Christopher Phillips, Independent
- Gareth Wood, University of Otago (NZ)
- Steve Zoppi, Internet2 – Advisor
- Nicole Roy, Internet2 – Flywheel



InCommon Technical Advisory Committee (TAC)

Chair: Keith Wessel, University of Illinois Urbana-Champaign
Vice-Chair: Joanne Boomer, University of Missouri

[2025 InCommon TAC Accomplishment Report]

Committee roster:

- Jeffrey Crawford, University of California, San Francisco
- Matthew Economou, Independent
- Derek Eiler, University of Nevada System
- Björn Mattsson, Sunet
- Andrew Morgan, Oregon State University
- Steven Premeau, Independent
- Mark Rank, Cirrus Identity
- Jim VanLandeghem, Moran Technology
- Kathy E. Wright, Clemson University
- John Bradley, Independent – Liaison from CACTI
- Judith Bush, OCLC – Liaison from CACTI
- David Bantz, University of Alaska – Liaison from CTAB
- Marina Krenz, REN-ISAC – Subject Matter Expert
- David Walker, Independent – Subject Matter Expert
- Eric Goodman, Independent – Subject Matter Expert
- Grady Bailey, Internet2 – Subject Matter Expert
- Albert Wu, Internet2 – Flywheel

eduroam-US Advisory Committee (eAC)

Chair: Brett Bieber, University of Nebraska
Vice-Chair: Derek Eiler, Nevada System of Higher Education (NSHE)

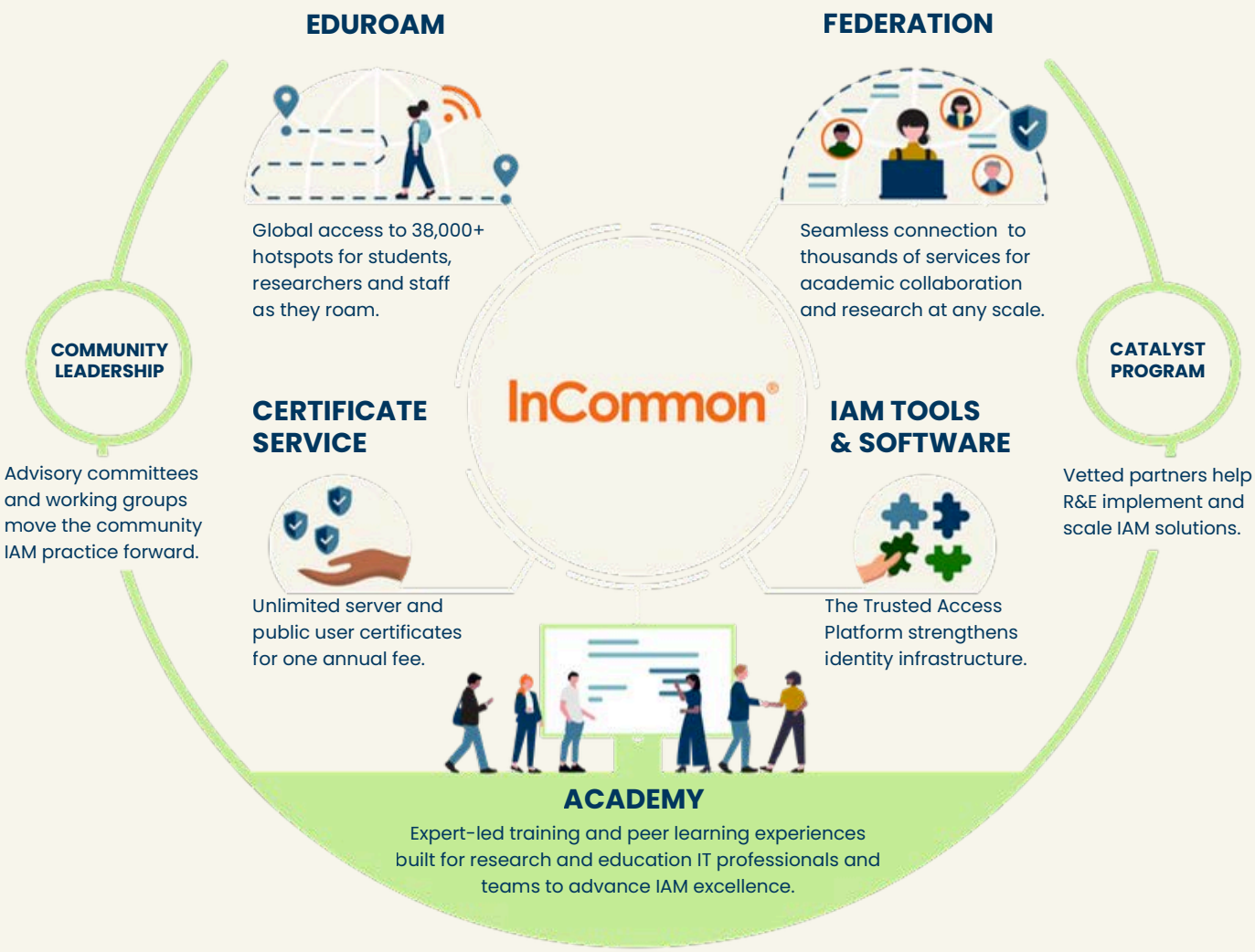
Committee roster:

- Kendra Ard, California State University Office of the Chancellor
- Dion Baird, Oregon State University
- John Buysse, University of Notre Dame
- Amel Caldwell, University of Washington
- Mike Dickson, University of Massachusetts Amherst
- Nadim El-Khoury, Springfield College
- Rob Gorrell, University of North Carolina – Greensboro
- Michael Hacker, University Heights Charter School District
- Saira Hasnain, University of Florida
- Jeremy Livingston, Stevens Institute of Technology
- Tim Cappalli, Microsoft – Subject Matter Expert
- Josh Howlett, Federated Solutions – Subject Matter Expert
- Tom Rixom, SecureW2 – Subject Matter Expert
- Stefan Winter, Restena and Network Security Proliferation UG – Subject Matter Expert
- Mike Zawacki, Internet2 – Flywheel

See the full list of committees and members: incommon.org/community/leadership

Forward. Together.

In 2025, InCommon focused on follow-through—strengthening the trust framework that enables collaboration across research and education while continuing to evolve services shaped by shared priorities. As identity and access environments shift, InCommon stays grounded in community input and institutional realities. Efforts ahead center on reducing friction as systems and partnerships expand.



Connection, confidence, and progress take shape through an active trust network that institutions build together – and that ongoing participation is what keeps InCommon moving forward.

Join the connected community built for R&E.